

OpenGL[®] Programming Guide

Eighth Edition

*The Official Guide to Learning
OpenGL[®], Version 4.3*



Dave Shreiner • Graham Sellers • John Kessenich • Bill Licea-Kane

The Khronos OpenGL ARB Working Group

Praise for *OpenGL® Programming Guide, Eighth Edition*

“Wow! This book is basically one-stop shopping for OpenGL information. It is the kind of book that I will be reaching for a lot. Thanks to Dave, Graham, John, and Bill for an amazing effort.”

—Mike Bailey, professor, Oregon State University

“The most recent Red Book parallels the grand tradition of OpenGL; continuous evolution towards ever-greater power and efficiency. The eighth edition contains up-to-the minute information about the latest standard and new features, along with a solid grounding in modern OpenGL techniques that will work anywhere. The Red Book continues to be an essential reference for all new employees at my simulation company. What else can be said about this essential guide? I laughed, I cried, it was much better than *Cats*—I’ll read it again and again.”

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—Neil Trevett, president, Khronos Group

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OpenGL[®]

Programming Guide

Eighth Edition

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The OpenGL graphics system is a software interface to graphics hardware. (“GL” stands for “Graphics Library.”) It allows you to create interactive programs that produce color images of moving, three-dimensional objects. With OpenGL, you can control computer-graphics technology to produce realistic pictures, or ones that depart from reality in imaginative ways.

The **OpenGL Series** from Addison-Wesley Professional comprises tutorial and reference books that help programmers gain a practical understanding of OpenGL standards, along with the insight needed to unlock OpenGL’s full potential.

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Library of Congress Cataloging-in-Publication Data

OpenGL programming guide : the official guide to learning OpenGL, version 4.3 /
Dave Shreiner, Graham Sellers, John Kessenich, Bill Licea-Kane ; the Khronos OpenGL
ARB Working Group.—Eighth edition.

pages cm

Includes index.

ISBN 978-0-321-77303-6 (pbk. : alk. paper)

1. Computer graphics. 2. OpenGL. I. Shreiner, Dave. II. Sellers, Graham.

III. Kessenich, John M. IV. Licea-Kane, Bill. V. Khronos OpenGL ARB Working Group.

T385.O635 2013

006.6'63—dc23

2012043324

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ISBN-13: 978-0-321-77303-6

ISBN-10: 0-321-77303-9

Text printed in the United States on recycled paper at Edwards Brothers Malloy in Ann Arbor, Michigan.

First printing, March 2013

*For my family—Vicki, Bonnie, Bob, Cookie, Goatee, Phantom, Squiggles,
Tuxedo, and Toby.
—DRS*

*To Emily: welcome, we're so glad you're here! Chris and J.: you still rock!
—GJAS*

In memory of Phil Karlton, Celeste Fowler, Joan Eslinger, and Ben Cheatham.

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